



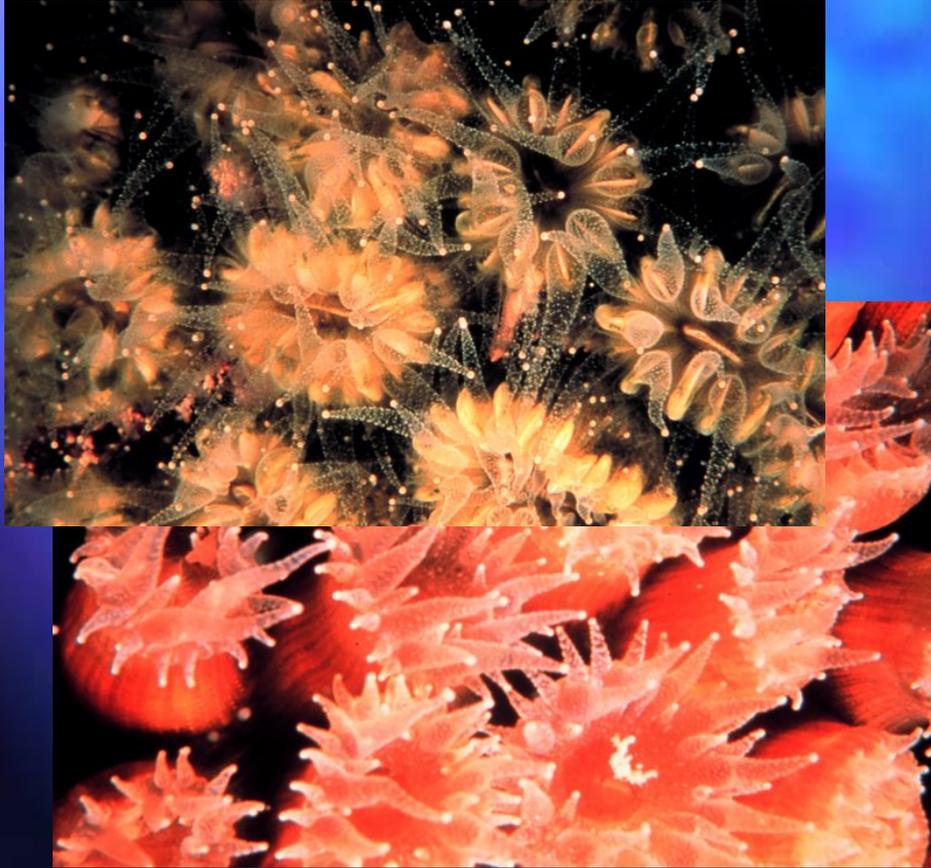
Corals



Landlords of the Reefs



What should you know about corals?



- They are animals
- Plants live inside of them
- Two kinds
 - Soft corals
 - Hard corals (These build reefs!)
- They are made of tiny polyps (which look like upside-down jellyfish)

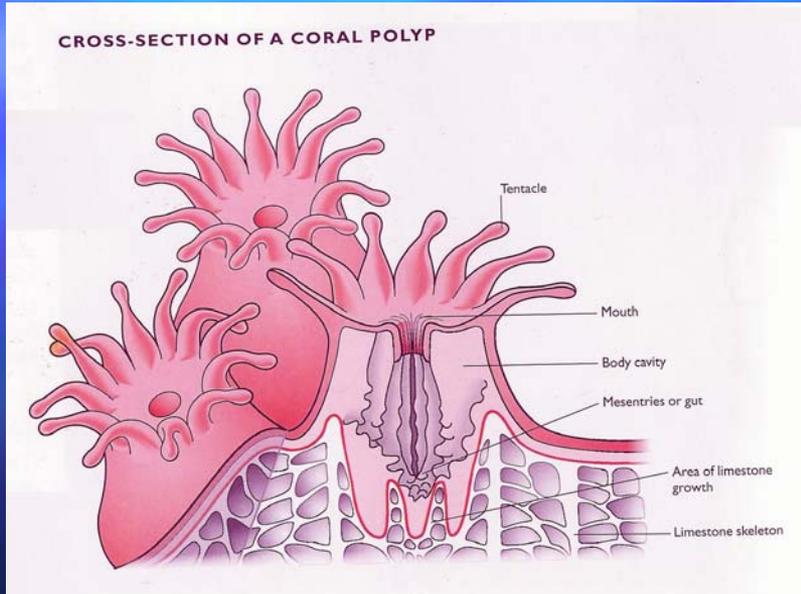
Hard Corals

The Reef Builders

- Polyps build hard limestone cups around their bases
- The cups cement together to make a coral colony
- Reefs are made of hundreds of hard coral colonies next to and on top of each other

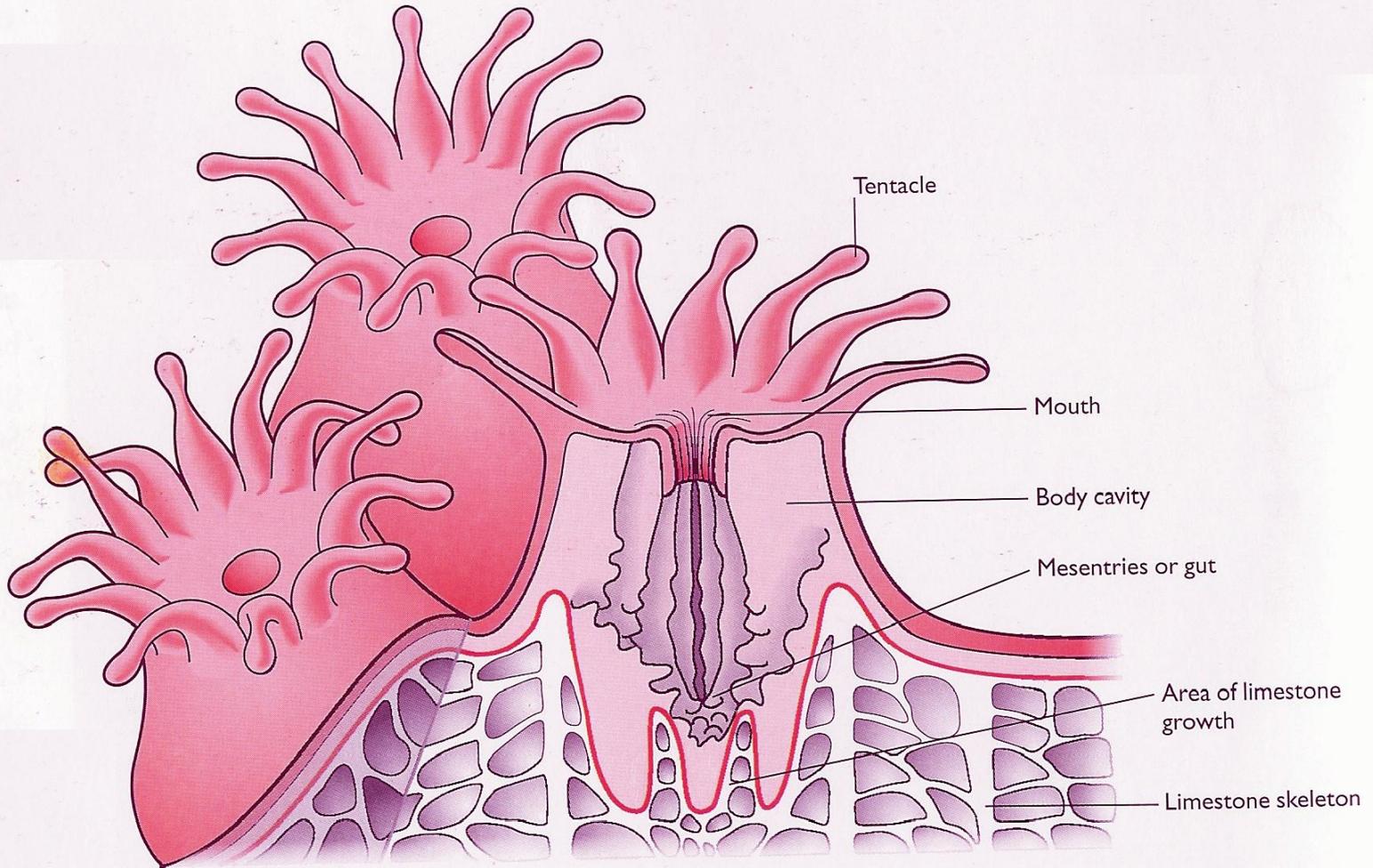


What's a Polyp?



- Tentacles release stinging cells when something brushes by them
- Polyps make their own limestone cup to hide in during the day
- At night, polyps come out to catch plankton floating by.

CROSS-SECTION OF A CORAL POLYP



Zoo-what!?!

Algae, Coral Polyps' Tenants

- Inside polyps live zooxanthellae, which are algae.
- Zooxanthellae give corals their color.
- Since algae are plants, they use sunlight and CO_2 to make food (the process known as photosynthesis).

Symbiosis: *So Happy Together*



- Two organisms living together and helping each other is called ***symbiosis***.
 - Zooxanthellae make oxygen, remove the polyp's wastes, and make food for the polyp from photosynthesis.
 - Coral polyps protect the zooxanthellae, release CO₂, and provide it with necessary nutrients from their own waste.

Mutually Beneficial Symbiosis

A Win-Win Situation

- Egyptian Plover bird and crocodile
- Bumblebee and flowers
- Lichens (fungi and algae)
- Your intestine and bacteria

Parasitic Symbiosis

A Win-Lose Situation

- Tapeworms and intestines
- Ticks and dogs
- Mistletoe and trees

How are these mutually symbiotic?

- Drivers and passengers in a carpool
- Tenants and landlords



